



## AMENDMENTS TO THE CLAIMS

Please amend claims 1-6 and 8 and cancel claim 7

### Claim 1 (Currently Amended)

An architecture for Converged Broadband Wireless Communications said system comprising  
~~CHARACTERIZED BY:~~

(1) A converged wireless terminal including comprising:

- a) a block radio-frequency and intermediate-frequency and digital broadband transceiver for converting between the base-band signal and the radio frequency, and
- b) a block base-band signal and control signal processing engine for processing different ~~various~~ wireless algorithms and protocols, and
- c) a Common Air Interface Basic Input/Output System (CAI-BIOS) for the mapping and controlling of different open wireless air-interfaces (~~wireless standards~~) to the said broadband transceiver and the said processing engine, and
- d) a SIM (Smart Integrated Memory) card or Memory Card Stick for the loading of ~~different~~ said open air interfaces and their open software modules to the said CAI-BIOS,

(2) A Common Access Point (CAP) including comprising:

- a) a block radio-frequency and smart antennas and broadband transceiver for converting between the base-band signal and the radio frequency, and
- b) a block base-band signal and control signal processing engine for processing different ~~various~~ wireless algorithms and protocols, and
- c) a Common Air Interface Basic Input/Output System (CAI-BIOS) for the mapping and controlling of different open wireless air-interfaces (~~wireless standards~~) to the said broadband transceiver and the said processing engine, and
- d) a group of open software modules providing said open ~~various~~ air interfaces (~~wireless standards~~) to the said CAI-BIOS, and
- e) a block network interface unit for connecting to the backbone wireline networks, [.]

(3) An All-IP (Internet Protocol) Packet Division Multiplex (PDM) backbone or core network including comprising:

- a) Conventional PDM network, and or
- b) Public or private PDM network.

### **Claim 2 (Currently Amended)**

The architecture for Converged Broadband Wireless Communications of claim 1 wherein:  
said Common Access Point and said converged wireless terminal further comprising:

- a) said Common Access Point supporting[s] ~~various~~ open network interfaces (~~for example, including~~ Fiber Optic, ATM (autonomous transfer mode), Ethernet, Digital Subscriber Line, Cable, etc) to the said PDM backbone network through wireline link, [;]
- b) said Common Access Point supporting[s] ~~various~~ open air interfaces (~~for example, including~~ GSM (Global System for Mobile Communication)/GPRS (General Packet Radio Service), [W-]CDMA (~~Wideband~~ Code Division Multiple Access), UMTS (Universal Mobile Telecommunications Service), OFDM (Orthogonal Frequency Division Multiplex), IEEE 802.11, 802.15, 802.16 standards and Wireless Local Loop, etc) to the said converged wireless terminal based on said CAI-BIOS architecture ~~through wireless air link~~, and [;]
- c) said converged wireless terminal supporting[s] said open air interfaces to the said common access point based on said CAI-BIOS architecture ~~through wireless air link~~.

### **Claim 3 (Currently Amended)**

The architecture for Converged Broadband Wireless Communications of claim 1 wherein:  
said Common Access Point and said converged wireless terminal further comprising:

- a) said converged wireless terminal and said common access point being ~~are all~~ open modules and ~~function units and can be~~ reconfigurable, programmable and software definable, [;]
- b) said converged wireless terminal and said common access point ~~can~~ automatically or manually ~~run in any of the~~ operative in said open air interfaces based on said CAI-BIOS architecture subject to the service availability, and [;]

- c) said common access point ~~can~~ automatically or manually ~~run in any of the~~ operative in said open network interfaces subject to the service availability.

#### **Claim 4 (Currently Amended)**

The architecture for Converged Broadband Wireless Communications of claim 1 wherein:

said converged wireless terminal and said common access point ~~are communicating~~ through All-IP end-to-end direct signaling and protocol<sub>1</sub>;

~~said converged wireless terminal and said common access point~~ and support integrated services of voice, data and video over said All-IP protocol and signaling through said open air interfaces.

#### **Claim 5 (Currently Amended)**

The architecture for Converged Broadband Wireless Communications of claim 1 wherein:

said CAI-BIOS utilizes ~~performs~~ the mapping and controlling between said open ~~different~~ air interfaces and ~~the~~ said open base-band/control processing engine, ~~the~~ said broadband transceiver as well as ~~the~~ said radio frequency unit of ~~the~~ said converged wireless terminal and ~~the~~ said common access point<sub>1</sub>;

~~said CAI-BIOS is the key unit of the said converged wireless terminal and the said common access point;~~ said CAI-BIOS and generates ~~provides~~ open interface parameters (OIP) information on of said open air interfaces including necessary transmission parameters, modulation parameters, channel parameters, access control parameters, dynamic bandwidth allocation parameters and open spectrum management ~~other specific air interface~~ parameters.

#### **Claim 6 (Currently Amended)**

The architecture for Converged Broadband Wireless Communications of claim 1[2] wherein:

said open software modules ~~that providing~~[e] said open air interfaces to said CAI-BIOS in said common access point can be stored in said common access point disks or uploaded from ~~the~~ said PDM backbone networks or uploaded from other remote networks<sub>1</sub>; and said open software modules ~~that providing~~[e] said open air interfaces to said CAI-BIOS in said converged wireless terminal can be loaded in said SIM card or said memory card ~~stick~~.

**Claim 7 (Cancelled)**

**Claim 8 (Currently Amended)**

A sample phone ~~product~~ of the converged broadband wireless terminal said system comprising ~~CHARACTERIZED BY:~~

- a) open Air Interfaces Options (automatically or manually) based on CAI-BIOS  
(Common Air Interface Basic Input/Output System) architecture, and
- b) Security (finger print and digital rights management,-ete), and
- c) Information recognition (voice recognition[,] and pattern recognition,-ete) ,
- d) Bandwidth on Demand (Quality of Service Centric) ,
- e) SIM card or memory card stiek containing said open air interfaces of said CAI-BIOS  
architecture .